

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for multicast document printing, the method comprising:
 - receiving document data to be printed at a host, wherein said document data includes a number of copies of a document to be created from the document data;
 - dividing the number of copies into a first batch associated with a first multicast group of at least two corresponding, separate printers and a second batch associated with a second multicast group of at least two corresponding, separate printers;
 - allocating, from the first batch, allocating a subset of the number of copies first subsets to each of at least two corresponding, separate printers of the first multicast group;
 - allocating, from the second batch, second subsets to each of at least two corresponding, separate printers of the second multicast group;
 - formatting the document data into a first print job associated with the first multicast group and a second print job associated with the second multicast group a print job;
 - embedding instructions specific to each of the corresponding printers of the first multicast group into the first print job to form an entire first print job, the instructions indicating for each of the corresponding printers of the first multicast group the allocated first subset of copies to be printed by that printer;
 - embedding instructions specific to each of the corresponding printers of the second multicast group into the second print job to form an entire second print job, the instructions indicating for each of the corresponding printers of the second multicast group the allocated second subset of copies to be printed by that printer;
 - multicasting the entire first print job to the first multicast group and multicasting the entire second print job to the second multicast group; at least two separate printers connected by a common network to the host; and

each of the at least two separate printers of the first multicast group receiving the entire first print job, and the entire first print job comprising including routing information comprising a list of printer identifiers and an assigned number of documents for each printer of the first multicast group; and

each of the at least two separate printers of the second multicast group receiving the entire second print job, the entire second print job including routing information comprising a list of printer identifiers and an assigned number of documents for each printer of the second multicast group.

~~wherein multicasting the entire print job to the at least two separate printers includes transmitting the entire print job from the host to a store and forward device residing on the network for reception and temporary storage at the store and forward device and forwarding by the store and forward device to the at least two separate printers.~~

2. (Original) The method of claim 1, wherein the host is a printer.
3. (Original) The method of claim 1, wherein the host is application software resident in a printer.
4. (Original) The method of claim 1, wherein the host is a computer.
5. (Original) The method of claim 1, wherein the host is a scanner.
6. (Original) The method of claim 2, wherein the printer further comprises a multi-function peripheral.

7. (Original) The method of claim 2, wherein the printer further comprises a copier.
8. (Original) The method of claim 2, wherein the printer further comprises a fax machine.
9. (Cancelled)
10. (Currently Amended) A computer readable medium, said medium containing software code comprising:
- code operable to receive document data to be printed at a host, wherein said document data includes a number of copies of a document to be created from the document data;
 - code operable to divide the number of copies to be created into at least two batches for corresponding to at least first and second groups, each group having one or more two corresponding, separate printers;
 - code operable to format the document data into a first print job batch and a second print job batch;
 - code operable to embed instructions specific to each of the one or more printers in the first group each of the corresponding printers into the first print job batch to form an entire first print job batch, the instructions indicating for each of the one or more printers in the first group corresponding printers a number of copies to be printed by that printer; and
 - code operable to embed instructions specific to each of the one or more printers in the second group into the second print job batch to form an entire second print job batch, the instructions indicating for each of the one or more printers in the second group a number of copies to be printed by that printer; and

code operable to request separate multicast transmissions ~~multicast transmission~~ of the entire first print job to the first group and the entire second print job to the second group. ~~entire print job to the at least two separate printers connected by a common network to the host;~~

~~code operable to multicast the entire print job to the at least two separate printers including transmitting the entire print job from the host to a store and forward device residing on the common network for reception and temporary storage at the store and forward device and forwarding by the store and forward device to the at least two separate printers.~~

11. (Original) The medium of claim 10, wherein the computer readable medium is read by a computer.

12. (Original) The medium of claim 10, wherein the computer readable medium is read by a printer.

13. (Original) The medium of claim 10, wherein the medium is a diskette.

14. (Original) The medium of claim 10, wherein the medium is a compact disc.

15. (Original) The medium of claim 10, wherein the medium is a network-accessible file.

16. (Currently Amended) A network device, comprising:

a port operable to connect to a network and receiving document data to be converted into hard copy output with a predetermined number of copies of a document to be created;

a processor in communication with the port, operable to format the document data into two or more entire print jobs, each entire print job ~~an entire print job~~ comprising a same document and instructions to ~~at least two printers~~ one or more printers assigning a number of copies of the same document to each of the ~~at least two printers~~ one or more printers, wherein a sum of copies to be created by ~~the at least two printers~~ each instructed printer is substantially equal to the predetermined number of copies to be created; and

a communications port operable to multicast the each entire print job to the associated one or more printers. ~~at least two printers connected to the network device by a common network;~~

~~wherein the communications port is also operable to transmit the entire print job from the communications port to a store and forward device residing on the network for reception and temporary storage at the store and forward device and forwarding by the store and forward device to the at least two separate printers.~~

17. (Original) The network device of claim 16, wherein the network device is a computer.

18. (Original) The network device of claim 16, wherein the network device is a printer.

19. (Original) The network device of claim 16, wherein the processor is a raster image processor.

20. (Currently Amended) A document printing method comprising:

receiving a single print request;

formatting an entire print job the single print request into at least two entire print jobs,
each entire print job comprising a same document to be printed and instructions specific to
each of at least two one or more printers to each print one or more copies of the same
document; and

separately multicasting the each of the at least two entire print job jobs over a
network, coupled to each of the at least two printers;

wherein multicasting the entire print job to the at least two separate printers includes
transmitting the entire print job from the host to a store and forward device residing on the
network for reception and temporary storage at the store and forward device and forwarding
by the store and forward device to the at least two separate printers.

21. (Currently Amended) The method of claim 20, further comprising receiving
one of the at least two entire print jobs at a receiving printer, the entire print job at one of the
at least two printers, locating the instructions specific to that receiving printer within the
received entire print job, and printing a number of copies specified in the specific
instructions.

22. (Currently Amended) A document printing method comprising:

receiving a multicast network transmission at a networked printer from a store and
forward device residing on the network;

determining whether the multicast network transmission contains an entire print job
that is one of a batch of entire print jobs; and

when the multicast network transmission contains an entire print job that is one of a batch of entire print jobs, locating instructions specific to the networked printer in the entire print job and printing at least one copy of a document contained in the entire print job according to the instructions.